



MECKLENBURG COUNTY

Land Use and Environmental Services Agency Code Enforcement

CODE INTERPRETATION

Mechanical/Plumbing

Code Volume Reference: NC Plumbing Code (2012)
Code Chapter Reference: 504.7
Subject: Multi-Story Water Heater Pans
Effective Date: March 1, 2015
Prepared/Revision Date: December 15, 2014

CODE:

504.7 Required pan. Where water heaters or hot water storage tanks are installed in: (a) remote locations such as a suspended ceiling, (b) attics, (c) above occupied spaces, or (d) unventilated crawl spaces, the tank or water heater shall be installed in a galvanized steel pan having a material thickness of not less than 0.0236 inch (0.6010 mm) (No. 24 gage), or other pans approved for such use.

Exceptions:

1. Electric water heaters may rest in a high-impact plastic pan of at least 1/16 inch (1.6 mm) thickness.
2. Water heater mounted on concrete floor for floor drains.

504.7.1 Pan size and drain. The pan drain shall not be less than 1 1/2 inches (38 mm) deep and shall not be obstructed by the appliance. The pan shall be drained by an indirect waste pipe having a minimum diameter of 1 inch (25.4 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4.

504.7.2 Pan drain termination. The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches (610 mm) above the adjacent ground surface.

INTERPRETATION:

Section 504.7 of the 2012 NC Plumbing Code provides requirements for a single water heater pan with a single drain. The purpose of this interpretation is to provide guidance for multi-story water heater pan installation, such as in apartments where the water heaters are installed in the same location on multiple floors. This interpretation provides an option to combine multiple pan drains and terminate in one location rather than run individual drains for each pan.

3 stories or less

Connected together with a minimum 1 inch pipe, and indirect to a floor drain or to daylight. No vent is required. Cannot be utilized for HVAC condensate drainage.

4 stories or more

Method #1^{1,2,3}

Indirect to sanitary or storm. Minimum 2 inch waste riser, trapped at each floor and vented through the roof. Precautions will need to be provided to protect the trap seals at each floor to prevent smoke migration (trap guard or trap primer).

Method #2^{1,2}

Direct to sanitary. Provide waste stack sized per Table 710.1(2). Precautions will need to be provided to protect the trap seals per 1002.4, to prevent sewer gas from entering the building (trap seal or trap primer).

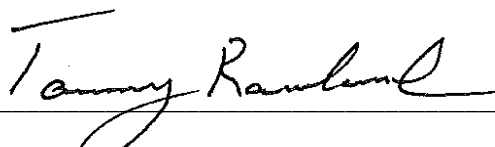
¹ Water heater pans shall be connected to the waste riser indirectly at each floor level.

² HVAC drainage may be utilized by the same waste riser and connected indirectly at each floor level

³ If not utilized for HVAC drainage, may go to daylight

Prepared by: **Consistency Team**

Approved By: _____



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